

**ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM**

Plant Abstract

Element Code: PDCHE0R010

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Zuckia brandegeei* var. *arizonica* (Standl.) Welsh

COMMON NAME: Navajo zuckia, Arizona siltbush

SYNONYMS: *Zuckia arizonica* Standl.

FAMILY: Chenopodiaceae

AUTHOR, PLACE OF PUBLICATION: *Zuckia brandegeei* var. *arizonica* (Standl.) S.L. Welsh, Great Basin Naturalist 44(2): 209. 1984. *Zuckia arizonica* P. Standley, J. Wash. Acad. Sci. 5(2): 58-59. 1915.

TYPE LOCALITY: Chalcedony Park, Petrified Forest Nat. Park, 18 mi SE of Holbrook, Apache Co. (Navajo Co.?), Arizona.

TYPE SPECIMEN: HT: US-694799. M. Zuck [Mrs. W. Hough] s.n., 15 Oct 1897. IT: NY, US.

TAXONOMIC UNIQUENESS: Variety *arizonica*, is 1 of 3 in *Zuckia brandegeei*, and 1 of 2 in Arizona; the other variety is *Z. b.* var. *brandegeei* (Brandegee's siltbush).

DESCRIPTION: Low erect shrub, branching from persistent woody base 0.5-2 dm (2-8 in); pubescent with inflated, whitish hairs; stems 1-5 dm (4-20 in). Leaves 1.3-8.0 x 0.15-1.0 cm, alternate, petioled, entire. Plants dioecious; staminate flowers with perianth cleft to middle or below, 1.5-1.8 mm; pistillate flowers few, intermixed in otherwise staminate spikes, without perianth, bibracteolate, sessile, solitary or in small clusters, forming short, interrupted, naked panicles of spikes. Fruiting bractlets accrescent, united except for a small apical orifice, 6-keeled, 2 of the keels broader and wing-like; stigmas 2, filiform, exserted; achenes horizontal, included within bracts. FNA (1993+) reports "... mainly four-ridged and narrowly two-winged..."

AIDS TO IDENTIFICATION: In spite of the similarity inhabited by the three varieties, their geographic ranges are mainly discrete. Besides the similarity of stature, staminate inflorescence, and flowers, the major difference between *Z. b.* var. *arizonica* and the varieties *brandegeei* and *plummeri* (Plummer's siltbush), is to be found in the fruiting bracteoles. In var. *arizonica*, the bracteoles are mainly four-ridged and narrowly two-winged, with mostly a horizontal arrangement of the achenes, while the other two varieties are mainly six-ridged, with mostly vertical arrangement of the achenes. (FNA 1993+).

ILLUSTRATIONS: Color photo of Holotype (US-694799, in <http://ravenel.si.edu/botany/types/fullRecords.cfm?myFamily>)
Color photo of Isotype (US-694862, in <http://ravenel.si.edu/botany/types/fullRecords.cfm?myFamily>)
Color photo of Isotype (NY-6426, in <http://207.156.243.8/emu/vh/specimen.php?irn=552370>)
Line drawing (in FNA 1993+, in http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=242415462)

TOTAL RANGE: Northeastern Arizona and eastern Utah.

RANGE WITHIN ARIZONA: Adamana, Chalcedony Park (Apache Co.), in and near Petrified Forest (Navajo Co.), and vicinity of Moenkopi and Tuba City (Coconino Co.).

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Woody perennial

PHENOLOGY: July – October; FNA (1993+) reports summer flowering period.

BIOLOGY:

HABITAT: Dry washes and flats. It is found on the Entrada, Summerville, Morrison, and Duchesne River formations, and on other siltstone and mudstone formations in north-central Arizona.

ELEVATION: 4,500 – 6,000 feet (1373-1830 m)

EXPOSURE:

SUBSTRATE: Reddish soil. Fine-textured or sandy, often saline and seleniferous substrates.

PLANT COMMUNITY: Great Basin Desertscrub.

POPULATION TRENDS: Unknown.

SPECIES PROTECTION AND PRESERVATION

ENDANGERED SPECIES ACT STATUS: None

STATE LIST STATUS: None

OTHER STATUS:

None

MANAGEMENT FACTORS:**CONSERVATION MEASURES TAKEN:****SUGGESTED PROJECTS:**

LAND MANAGEMENT/OWNERSHIP: BIA – Navajo Nation; NPS – Petrified Forest National Monument. Possibly Hopi Reservation.

SOURCES OF FURTHER INFORMATION**REFERENCES:**

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MAJOR KNOWLEDGEABLE INDIVIDUALS:

Dr. H. Stutz - Dept. Botany, Brigham Young University, Provo, Utah

ADDITIONAL INFORMATION:

Stutz: Herbarium specimens often misidentified as *Grayia bradegei* or *Atriplex cuneata*. It is much more common than its meager representation in herbaria. It is common over several thousand acres between Tuba City and Chinle.

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